

REMARKS/ARGUMENTS

Claims 5, 8, 16 and 19-21 are cancelled; Claim 1 is amended. Amended Claim 1 is supported at previously presented Claim 1, at specification page 5, lines 26-31, at page 6, lines 1-5, and at pages 8-12, Examples 1-4.

No new matter is added.

Applicants submitted, along with this paper, a chapter from Ulmann's Encyclopedia of Industrial Chemistry on "Coating of Paper and Board." The chapter evidences that terms such as "coated paper" and "paper coating" are well defined and that a person of ordinary skill would be aware of this fact and the implications of paper coating.

The obviousness rejection of Claims 1-3, 6-7, 9-18 and 22-24 based on Blum is traversed. In the process of sole independent Claim 1, a paper or paper product is treated with an aqueous solution comprising a cationic polymer having properties described in the claim, in a specified amount. After treatment, the treated paper or paper product is not coated.

Blum does not describe or suggest at least the Claim 1 feature that, after treatment, the treated paper or paper product is not coated. Further, Blum "teaches away" from this feature. For either or both of these reasons, Claim 1 and its dependent claims are not obvious in view of Blum.

In detail: Blum is drawn to a paper "*coated with a coating slip* containing at least one optical brightener" that "is produced by a process in which a base paper or precoated paper is treated, before *application of the coating slip* containing optical brightener, with at least one substance which enhances the efficiency of optical brighteners."¹ (Emphasis added). At paragraph 11, Blum describes in part: "this object is achieved by a process for the production of paper *coated with a coating slip* containing at least one optical brightener, in which the

¹ See Blum, Abstract.

base paper or precoated paper is treated, before *application of the coating slip* ...with at least one substance which enhances the efficiency of optical brighteners.” All of Blum’s inventive embodiments in Example 1 (e.g., IV and V, paragraphs 130 and 131 at page 9) are *coated with coating slips*. Blum requires, post treatment, coating with a coating slip.

In contrast to Blum, in the process of present Claim 1, the treated paper or paper product is not coated (with a coating slip). Blum does not therefore describe or suggest² every feature of Claim 1 and its dependent claims. Further, Blum “teaches away”³ from at least the Claim 1 feature that the treated paper is not coated. Indeed, the present specification, as a whole, clarifies that coating the paper or paper product with a coat slip post treatment would be counterproductive, because the polymer employed in the treatment would be completely covered and its beneficial effects on printability would be mooted. For either or both of these reasons, the obviousness rejection should be withdrawn.

Additional, in the previously filed Amendment, Applicants submitted superior results (e.g., improved water resistance and water fastness of ink-jet printed images) that were unexpected in light of the cited references. Responsive to these superior and unexpected results, the Office asserts “comparing invention polyelectrolyte IX...with comparative example polyelectrolyte IV...appears to show very similar results” and that “without further evidence, the examiner maintains that the claims are obvious over Blum or Blum in view of Dyllick-Brenzinger and Smigo.⁴” Applicants disagree. Of the 8 tests specified in Table 1 (specification page 9), the polyelectrolytes IX and IV have identical ratings only in one test. In the remaining 7 tests, the inventive polyelectrolyte IX received better ratings than the

² “Obviousness requires a suggestion of all limitations in a claim.” See CFMT, Inc. v. Yieldup Intern. Corp., 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing In re Royka, 490 F.2d 981, 985 (CCPA 1974)).

³ See M.P.E.P. § 2144.05(III). (“*A prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention”).

⁴ See Official Action page 3.

comparative polyelectrolyte IV. In 2 of these tests, the ratings were 2 or 3 points higher. From the data in Table 1, the superiority of the inventive process is sufficiently evidenced. Withdrawal of the obviousness rejection is requested on this basis alone.

The obviousness rejection of Claims 1-4, 6-7, 9-18, and 22-24 as being unpatentable in view of Blum in view of Dyllick-Brenzinger and Smigo is traversed. Claim 1 is the sole independent claim. As previously described, Blum does not describe or suggest, and “teaches away” from, at least the Claim 1 feature that after treatment, the treated paper or paper product is not coated. Further, Blum does not describe or suggest the superior results obtained by the inventive process. Dyllick-Brenzinger and Smigo do not cure any of these deficiencies. Withdrawal of the obviousness rejection of Claim 1 and its dependent claims is requested.

Applicants submit the present application is in condition for allowance. Early notification to this effect is earnestly solicited.

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